

**Amendment to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

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This listing of claims will replace all prior versions, and listings, of claims in the application:

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1. (Withdrawn) A solvent composition for selective removal of COS from a gas stream containing same, said composition comprising

- a) at least one polyalkylene glycol alkyl ether of the formula



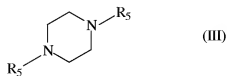
wherein  $R_1$  is an alkyl group having from 1 to 6 carbon atoms;  $R_2$  is hydrogen or an alkyl group having from 1 to 4 carbon atoms; Alk is an alkylene group, branched or unbranched, having from 2 to 4 carbon atoms, and n is from 1 to 10; and

- b) at least one alkanolamine compound of the formula



or

at least one piperazine compound of formula



wherein  $R_3$  is hydrogen, an alkyl group having from 1 to 6 carbon atoms, or the  $R_4OH$  group;  $R_4$  is a branched or unbranched alkylene group having from 1 to 6 carbon atoms;  $R_5$ , independently in each occurrence, is hydrogen or an hydroxyalkyl

group having from 1 to 4 carbon atoms; and  $R_6$  is hydrogen, an alkyl group having from 1 to 6 carbon atoms or an hydroxyalkyl group having from 1 to 4 carbon atoms.

2. (Withdrawn) The solvent composition according to Claim 1 wherein the polyalkylene glycol alkyl ether of the formula I is a mixture of polyalkylene glycol alkyl ethers comprising dimethyl ethers of polyethylene glycols of formula  $\text{CH}_3\text{O}(\text{C}_2\text{H}_4\text{O})_n\text{CH}_3$  wherein n is from 1 to 10.
3. (Withdrawn) The solvent composition according to Claim 2 wherein the mixture of polyalkylene glycol alkyl ethers comprises from about 0 to about 0.5 wt% of diethylene glycol dimethyl ether, from about 5 to about 7 wt% of triethylene glycol dimethyl ether, from about 16 to about 18 wt% tetraethylene glycol dimethyl ether, from about 23 to about 25 wt% of pentethylene glycol dimethyl ether, from about 22 to about 24 wt% of hexaethylene glycol dimethyl ether, from about 15 to about 17 wt% of heptaethylene glycol dimethyl ether, from about 8 to about 10 wt% of octaethylene glycol dimethyl ether, from about 3 to about 5 wt% of nonaethylene glycol dimethyl ether, and from about 1 to about 2 wt% of decaethylene glycol dimethyl ether.
4. (Withdrawn) The solvent composition of Claim 1 wherein the component b) is an alkanolamine of formula II in which substituent  $R_3$  is hydrogen.
5. (Withdrawn) The solvent composition of Claim 1 wherein the component b) is monoethanolamine.
6. (Withdrawn) The solvent composition of Claim 1 wherein the component b) is an alkanolamine of formula II in which substituent  $R_3$  is an alkyl group having from 1 to 6 carbon atoms or the  $R_4\text{OH}$  group.
7. (Withdrawn) The solvent composition according to Claim 6 wherein the alkanolamine of formula II is selected from the group consisting of diethanolamine, methylethanolamine and diisopropanolamine.
8. (Withdrawn) The solvent composition of Claim 1 wherein the component b) is piperazine.
9. (Withdrawn) The solvent composition of Claim 1 wherein the component b) is hydroxyethylpiperazine.

10. (Withdrawn) A process for selective removal of COS from a gas stream containing COS and CO<sub>2</sub>, said process comprising contacting the gas stream with a solvent composition comprising

- a) at least one polyalkylene glycol alkyl ether of the formula



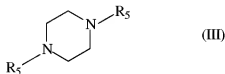
wherein R<sub>1</sub> is an alkyl group having from 1 to 6 carbon atoms; R<sub>2</sub> is hydrogen or an alkyl group having from 1 to 4 carbon atoms; Alk is an alkylene group, branched or unbranched, having from 2 to 4 carbon atoms; and n is from 1 to 10; and

- b) at least one alkanolamine compound of the formula



or

at least one piperazine compound of formula



wherein R<sub>3</sub> is hydrogen, an alkyl group having from 1 to 6 carbon atoms, or the R<sub>3</sub>OH group; R<sub>4</sub> is a branched or unbranched alkylene group having from 1 to 6 carbon atoms; R<sub>5</sub>, independently in each occurrence, is hydrogen or an hydroxyalkyl group having from 1 to 4 carbon atoms; and R<sub>6</sub> is hydrogen, an alkyl group having from 1 to 6 carbon atoms or an hydroxyalkyl group having from 1 to 4 carbon atoms.

11 – 18. (Canceled)

19. (Currently amended) A solvent composition for selective removal of COS from a gas stream containing same, said composition comprising

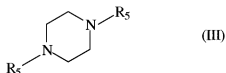
- a) 1,3-dimethyl-3,4,5,6-tetrahydro-2(1H)-pyrimidinone; and

- b) at least one alkanolamine compound of the formula



or

- at least one piperazine compound of formula

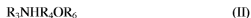


wherein  $R_3$  is hydrogen, an alkyl group having from 1 to 6 carbon atoms, or the  $R_4OH$  group;  $R_4$  is a branched or unbranched alkylene group having from 1 to 6 carbon atoms;  $R_5$ , independently in each occurrence, is hydrogen or an hydroxyalkyl group having from 1 to 4 carbon atoms; and  $R_6$  is hydrogen, an alkyl group having from 1 to 6 carbon atoms or an hydroxyalkyl group having from 1 to 4 carbon atoms

with the proviso that the composition contains less than about 9 weight percent of water.

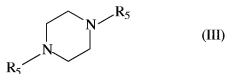
20. (Original) A process for selective removal of COS from a gas stream containing COS and  $CO_2$ , said process comprising contacting the gas stream with a solvent composition comprising

- a) 1,3-dimethyl-3,4,5,6-tetrahydro-2(1H)-pyrimidinone; and  
b) at least one alkanolamine compound of the formula



or

at least one piperazine compound of formula



wherein R<sub>3</sub> is hydrogen, an alkyl group having from 1 to 6 carbon atoms, or the R<sub>4</sub>OH group; R<sub>4</sub> is a branched or unbranched alkylene group having from 1 to 6 carbon atoms; R<sub>5</sub>, independently in each occurrence, is hydrogen or an hydroxyalkyl group having from 1 to 4 carbon atoms; and R<sub>6</sub> is hydrogen, an alkyl group having from 1 to 6 carbon atoms or an hydroxyalkyl group having from 1 to 4 carbon atoms.

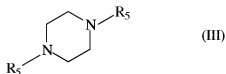
21. (Withdrawn) A solvent composition for removal of COS from a gas stream containing same, said composition comprising

- a) a mixture of N-formylmorpholine and N-acetylmorpholine; and
- b) at least one alkanolamine compound of the formula



or

at least one piperazine compound of formula



wherein R<sub>3</sub> is hydrogen, an alkyl group having from 1 to 6 carbon atoms, or the R<sub>4</sub>OH group; R<sub>4</sub> is a branched or unbranched alkylene group having from 1 to 6 carbon atoms; R<sub>5</sub>, independently in each occurrence, is hydrogen or an hydroxyalkyl group having from 1 to 4 carbon atoms; and R<sub>6</sub> is hydrogen, an alkyl group having from 1 to 6 carbon atoms or an hydroxyalkyl group having from 1 to 4 carbon atoms.

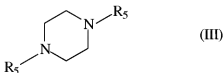
22. (Withdrawn) A process for selective removal of COS from a gas stream containing same, said process comprising treating the gas stream with a solvent composition comprising

- a) a mixture of N-formylmorpholine and N-acetylmorpholine; and
- b) at least one alkanolamine compound of the formula



or

at least one piperazine compound of formula



wherein  $R_3$  is hydrogen, an alkyl group having from 1 to 6 carbon atoms, or the  $R_4OH$  group;  $R_4$  is a branched or unbranched alkylene group having from 1 to 6 carbon atoms;  $R_5$ , independently in each occurrence, is hydrogen or an hydroxyalkyl group having from 1 to 4 carbon atoms; and  $R_6$  is hydrogen, an alkyl group having from 1 to 6 carbon atoms or an hydroxyalkyl group having from 1 to 4 carbon atoms.

23. (Previously presented) The solvent composition of Claim 19 wherein component b) is an alkanolamine of formula II in which substituent  $R_3$  is hydrogen.

24. (Previously presented) The solvent composition of Claim 19 wherein component b) is at least one of monoethanolamine, diethanolamine, methylethanolamine, diisopropanolamine, and 2-(2-aminoethoxy) ethanol.

25. (Previously presented) The solvent composition of Claim 24 wherein component b) is monoethanolamine.

26. (Previously presented) The process of Claim 20 wherein component b) is an alkanolamine of formula II in which substituent  $R_3$  is hydrogen.

27. (Previously presented) The process of Claim 20 wherein component b) is at least one of monoethanolamine, diethanolamine, methylethanolamine, diisopropanolamine, and 2-(2-aminoethoxy) ethanol.

28. (Previously presented) The process of Claim 27 wherein component b) is monoethanolamine.

29. (New) The process of Claim 20 wherein component b) is a compound of formula III.
30. (New) The process of Claim 20 wherein the solvent composition contains less than about 9 weight percent of water.

Respectfully submitted,

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